

Remarks/Arguments

Summary of the Office Action

Paragraphs [0006] and [0007] of the specification stand objected to under 35 U.S.C. §132 for purportedly introducing new matter.

Claims 1-19 and 21-23 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement for purportedly introducing new matter.

Claims 1-22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wical (Wical) (U.S. Patent No. 6,460,034), in view of Yanagihara et al. (Yanagihara) (U.S. Patent No. 6,161,102).

Withdrawal of Final Rejection

Applicant respectfully submits that the Final Rejection issued on the present application is improper based on MPEP 706.07(a) and should be withdrawn.

MPEP 706.07(a) states “Furthermore, a second or any subsequent action on the merits in any application or patent undergoing reexamination proceedings will not be made final if it includes a rejection, on newly cited art, ...of any claim not amended by applicant or patent owner in spite of the fact that other claims may have been amended to require newly cited art.”

Independent claim 20 was not amended, yet has now been rejected by newly cited art and the rejection has been made final. Thus, the Final Rejection is improper under MPEP 706.07(a) and should be withdrawn.

Additionally, the previous amendments made to the claims (see Supplemental Amendment May 21, 2004) were not to distinguish over the references but only to assist the Examiner in understanding the claims. As should be recalled by the Examiner, the Examiner suggested the

amendments during a telephonic interview on May 19, 2004 in order to clarify recited terms. Therefore, there is no basis to hold Applicant's amendment necessitated the new grounds of rejection and the Final Rejection is premature (MPEP 706.07(c)).

Summary of the Response

No new matter has been introduced into the specification. No new matter has been introduced into claims 1-19 and 21-23. This set of new matter rejections, and similarly baseless new matter rejections appearing in previous Office Actions, are without merit and should be withdrawn. Simply making stylistic changes, without adding elements, restrictions, items, or anything else does not add new matter to an application. MPEP §706.03(o) teaches that new matter includes the addition of wholly unsupported subject matter, the addition of specific percentages or components after a broader original disclosure, and the like. Basically repeating a phrase found in a preamble in an element to make a claim read more clearly is not new matter as discussed in MPEP §706.03(o). Particularly when repeating the phrase was undertaken as a purely stylistic matter at the request of the Examiner. No new functionality, feature, or subject matter has been added and thus Applicant respectfully requests that all these new matter rejections be withdrawn.

The Examiner is reminded that the previous amendments were made at the suggestion of the Examiner. The amendments came from discussions with the Examiner during the May 19, 2004 telephone interview. During the interview, the Examiner requested that the claim terms be clarified. Although Applicant believes the claims were clear on their face, the amendments were made to satisfy the Examiner. Regardless of that fact, the amendments simply re-phrase subject matter previously described. Thus, the new matter rejections are without merit and should be withdrawn.

The claims are patentably distinct over Wical in view of Yanagihara since the references, neither alone nor in combination, describe each and every claimed element. Wical does not now, and never has taught pre-scoring association wherein a "system does not have to retrieve all candidate documents or compute a total relevancy score for every candidate document before it

can determine which documents are most relevant.” Paragraph [0037]. None of the references provided by the Examiner throughout the prosecution of this application have taught pre-scoring association. Instead, all of the references provided by the Examiner throughout the prosecution of this application have required a system to retrieve all candidate documents and to compute a total relevancy score for every candidate document before determining which documents are most relevant.

35 U.S.C. §132

The Examiner asserts that paragraphs [0006] and [0007] include new matter that is not supported by the originally filed specification. Specifically, the Examiner claims that the phrase “in a search query” and the phrase “that is based on a sum of the term weights of the matched terms in the search query” in paragraph [0006] is new matter. Additionally, the Examiner claims that the phrase “of the search query” and the phrase “the total matched term weight, which is based on a sum of the term weights of the matched terms in the search query” in paragraph [0007] is new matter.

Paragraph [0006], “in a search query”

This paragraph previously read, in pertinent part, “[t]he candidate documents are identified in response to a search query where the search query includes one or more terms. A term weight is assigned to each of the terms.” Thus, the prior language of paragraph [0006] specifies that a search query includes one or more terms. When the word “terms” is used in the sentence following the sentence that specifies that a search query includes one or more terms, the text is unambiguous that the “terms” referred to are the “terms” in the search query in the previous sentence. Therefore, the language at issue is not new matter, being a simple re-iteration of a fact made in the immediately preceding sentence.

During a telephonic interview of May 19, 2004, the Examiner suggested that adding the phrase “in a search query” would make paragraph [0006] read better in that it would more tightly link “the terms” to the terms in the search query as referenced in the immediately preceding sentence.

Therefore, this additional verbiage was added at the Examiner's request. To receive a new matter objection based on agreed upon stylistic changes was completely unexpected, and, as has been illustrated above, is completely unwarranted. Therefore, Applicant respectfully requests that the Examiner remove the demand to cancel this allegedly new matter.

Paragraph [0006], “on a sum of the term weights of the matched terms in the search query”
This paragraph previously read, in pertinent part, “[d]ocuments are associated to a relevance score bin based on a total matched term weight where a document that matches a first total term weight is associated to a more relevant score bin than a document that matches a second total term weight less than the first total term weight.” The Examiner is directed to paragraph [0034], which unambiguously lays out that the “total term weight” is the sum of matched term weights. Additionally, Table (3) illustrates an example of total term weights computed as a sum of matched term weights. Similarly paragraph [0035] provides an example of total term weights being computed as a sum of matched term weights.

Once again, this amendment was made in response to the telephonic interview of May 19, 2004.

Paragraph [0007], “of the search query”

This paragraph previously read, in pertinent part, “[t]he system includes logic for processing a search query that has one or more terms. A document retrieval logic identifies candidate documents that match the search query. A ranking logic assigns a term weight to each of the terms...”. The prior language of paragraph [0007] unambiguously states that a search query includes one or more terms. Thus, when the word “terms” appears two sentences later, the original text is equally unambiguous that the “terms” being referenced are the “terms” in the search query. Thus, the additional language is fully supported, unambiguous, and decidedly not new matter.

Once again, this amendment was made in response to the telephonic interview of May 19, 2004.

Paragraph [0007], “the total matched term weight, which is based on a sum of the term weights of the matched terms in the search query”

This paragraph previously read, in pertinent part, “[t]he ranking logic also groups the candidate documents based on the matched term weight, where a document that matches a first total term weight is associated to a more relevant score range than a document that matches a second total term weight that is less than the first total term weight.” The Examiner is directed to paragraph [0034], which defines that “total term weight” is the sum of matched term weights. Additionally, Table (3) illustrates an example of total term weights computed as a sum of matched term weights. Similarly paragraph [0035] provides an example of total term weights being computed as a sum of matched term weights. After reviewing the prior language and the supporting paragraphs and examples, there can be no doubt that this added language does not introduce new matter into the specification. Indeed, careful review of paragraphs [0034] through [0037] reviews the pre-scoring association absent in every reference provided by the Examiner throughout the prosecution of the application.

Once again, this amendment was made in response to the telephonic interview of May 19, 2004.

35 U.S.C. §112, first paragraph

The Examiner asserts that claims 1, 7, 8, 13, and 21 include subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Examiner claims that the phrase “of the search query” in claims 1, 7, 8, 13, and 21 is new matter because it is not supported by the original filed specification. Similarly, the Examiner claims that the phrase “based on a sum of the term weights of the terms in the search query” in claim 1 is new matter because it is not supported by the original filed specification.

Claim 1: “Of the search query”

The Examiner is directed to the preamble of claim 1, which reads, “where the search query includes one or more terms.” According to the rules of antecedent basis, “the terms”, which appears in the first element of claim 1, must, through the use of the definite article “the”, refer back to the “one or more terms” called out in the preamble. Therefore, “of the search query” is not even required to unambiguously identify that “the terms” refers to the terms in the search query. Thus, “of the search query” is not new matter since it merely reiterates that “the terms” refers to the terms in the search query as spelled out in the preamble.

Additionally, the Examiner is directed to paragraph [0006], which reads, “a search query where the search query includes one or more terms”, and paragraph [0007], which reads, “a search query that has one or more terms.” The Examiner is also directed to paragraph [0023], which reads, “[a] search query typically includes one or more keywords … that represent subject matter or content that a user wishes to locate. A keyword, phrase or attribute will be referred to as a ‘term’ ”. There can be no doubt that the specification supports the fact that a query may include one or more terms. Therefore, “of the search query” is not new matter.

Once again, this amendment was made in response to the telephonic interview of May 19, 2004.

Claim 1: “based on a sum of the term weights of the terms in the search query”

The new matter rejection is directed to the language “based on a sum of the term weights of the terms in the search query”. However, which portion of the added language is new matter is not identified by the Examiner. Thus, Applicant is required to parse the language to discover what, if anything, could possibly be new matter.

The Examiner is directed to the preamble of claim 1, which reads, “where the search query includes one or more terms”. Thus, the new matter rejection cannot refer to the portion of the language “of the terms in the search query” since the preamble clearly recites that a search query may include one or more terms. This leaves “based on a sum of the term weights” as the

potential new matter. The Examiner is directed to the first element of claim 1, which reads, “assigning a term weight to each of the terms”. Thus, the new matter rejection cannot refer to the portion of the language “of the term weights” since the element clearly recites that weights will be assigned to terms. This leaves “based on a sum”. The Examiner therefore is likely asserting that “based on a sum” is the new matter. The Examiner is directed to paragraph [0034], which provides support for an example summation process where it describes associating “based on their matched term weights.” Similarly, the Examiner is directed to Table (3), which provides an example of summing matched term weights. Likewise, paragraph [0035] provides another example of summing matched term weights. Thus, “based on a sum” is supported in several places throughout both the description and the claims and therefore is not new matter. Therefore, the addition of the larger phrase “based on a sum of the term weights of the terms in the search query” is not new matter, and simply reiterates facts called out in the specification and the claims.

Once again, this amendment was made in response to the telephonic interview of May 19, 2004.

Claim 7: “Of the search query”

The Examiner is directed to the preamble of claim 7, which reads, “where the search query includes one or more terms.” According to the rules of antecedent basis, “the terms” refers back to the “one or more terms” described in the preamble. The added language is internally supported in the very claim in which it appears. Thus, “of the search query” is not new matter, and merely reiterates that “the terms” refers to the terms in the search query as spelled out in the preamble.

The Examiner is also directed to paragraph [0006], which reads, “a search query where the search query includes one or more terms”, and paragraph [0007], which reads, “a search query that has one or more terms.” The Examiner is also directed to paragraph [0023], which reads, “[a] search query typically includes one or more keywords … that represent subject matter or content that a user wishes to locate. A keyword, phrase or attribute will be referred to as a

“term”. There can be no doubt that the specification supports the fact that a query may include one or more terms. Therefore, “of the search query” is not new matter.

Claim 8: “Of the search query”

The Examiner is directed to the first element of claim 8, which reads, “a search query having one or more terms.” Thus, according to the rules of antecedent basis, “the terms” refers back to the “one or more terms” described in the first element. Therefore, “of the search query” is internally supported in the claim in which it appears. Thus, “of the search query” is not new matter, and merely reiterates that “the terms” refers to the terms in the search query as spelled out in the first element.

The Examiner is also directed to paragraph [0006], which reads, “a search query where the search query includes one or more terms”, and paragraph [0007], which reads, “a search query that has one or more terms.” The Examiner is also directed to paragraph [0023], which reads, “[a] search query typically includes one or more keywords … that represent subject matter or content that a user wishes to locate. A keyword, phrase or attribute will be referred to as a “term”. There can be no doubt that the specification supports the fact that a query may include one or more terms. Therefore, “of the search query” is not new matter.

Claim 13: “Of the search query”

Claim 13 does not include the phrase “of the search query”.

Therefore Applicant respectfully requests that the rejection for adding the new matter “of the search query” be withdrawn.

Claim 21: “Of the search query”

Claim 21 does not include the phrase “of the search query”.

Therefore Applicant respectfully requests that the rejection for adding the new matter “of the search query” be withdrawn.

Claims 2-6, 9-12, 22-23

Claims 2-6 depend from Claim 1. These claims stand rejected because they purportedly have the same defects as the claim from which they depend. But Claim 1 has been shown to not include new matter and thus Applicant respectfully requests that the rejections of these claims be withdrawn.

Claims 9-12 depend from Claim 8. These claims stand rejected because they purportedly have the same defects as the claim from which they depend. But Claim 8 has been shown to not include new matter and thus Applicant respectfully requests that the rejections of these claims be withdrawn.

Claims 22-23 depend from Claim 21. These claims stand rejected because they purportedly have the same defects as the claim from which they depend. But Claim 21 has been shown to not include new matter and thus Applicant respectfully requests that the rejections of these claims be withdrawn.

The Present Claims Patentably Distinguish Over The References Of Record

Claims 1-22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wical in view of Yanagihara. Wical is the same reference upon which the §103(a) rejections in both the first Office Action, and the second Office Action were based. The Applicant asserts that the combination of Wical and Yanagihara does not teach or suggest each and every claimed element and/or limitation and thus the 35 U.S.C. § 103(a) rejections should be withdrawn.

Specifically, neither reference teaches pre-scoring association that facilitates retrieving a smaller set of candidate objects and thus computing a final relevance score for a smaller set of documents. All references provided by the Examiner throughout the prosecution of this application have described systems where no pre-scoring association is performed and thus a complete set of candidate objects are retrieved and then subjected to final relevance scoring.

Wical

The Examiner asserts that Wical discloses an object retrieval system that performs search query processing, that retrieves candidate objects that match search queries, that assigns term weights to query terms, and that produces a relevance score for a retrieved document. Clearly Wical describes a system that inputs search queries, assigns weights to search terms, retrieves all documents that match the query and outputs a list of documents. But that's precisely what's wrong now, and what's been wrong with the Wical reference throughout all its appearances during the prosecution of this application.

Wical describes a system that retrieves an entire set of documents and performs a complete relevance scoring for all the retrieved documents. Furthermore, Wical describes expanding a query so that even more documents are returned. Documents that don't even match the query terms are retrieved and are relevance scored. Wical neither teaches nor suggests the systems and methods described and claimed in the application. To wit, Wical is silent concerning claimed elements like:

associating a document to a relevance score bin, and
retrieving a set of most relevant documents ... without retrieving other candidate documents.

Throughout the prosecution of this application, the Examiner has consistently missed the fact that the application describes a system that does not retrieve all documents matched by a query and that does not, therefore, perform a complete relevance score for all documents that match a query. The Examiner has provided no references on point with the pre-scoring association performed by the example systems and methods described in the application. The application clearly describes a system that first does an initial relevance scoring for documents based on a first relevance scoring method applied to terms in an index, that then retrieves a subset of the documents matched in the index based on that initial relevance scoring, and only then performs a second final relevance scoring for members of the subset of documents.

The Examiner also asserts that Wical discloses a system that retrieves a set of most relevant objects that are associated to the relevance score ranges having a greatest matched term weight. This is completely inaccurate. Indeed, Wical discloses exactly the opposite. Wical discloses a system that expands a search query and retrieves additional documents that do not even match terms in a search query. The Examiner is directed to claim 1 in Wical, which reads, “selecting, in response to said query, at least one additional document, not previously selected, that comprises at least one theme in common with said themes identified in said documents selected.” Wical is describing a system that, after all the documents that match the search term queries have been retrieved, and after all these documents have been completely relevance scored, performs even more processing that facilitates retrieving even more documents. This could not be further from the processing described in the application, which describes, in paragraph [0008], that “response time is improved”.

It is beyond question that Wical describes a system that performs additional processing to retrieve additional documents rather than reducing the number of documents that are retrieved and subjected to complete relevance scoring. Col. 2, ll. 49-53 reads, “[i]n addition, the factual knowledge base query processing selects additional documents, through use of the content information, such that the additional documents have content in common with content in the original document set.” This is more processing, not less processing as described in the application. Similarly, Col. 3, ll. 3-8 reads, “[t]he factual knowledge base query processing maps the expanded query term set to categories of the knowledge base, and selects documents, as well as the document themes, classified for those categories. Additional documents, which have themes common to the themes of the original document set, are selected.” Thus, after retrieving the “original document set” and subjecting each and every member to complete relevance scoring, additional documents that do not even match the search query terms are retrieved. Once again this is more processing, not less.

The Examiner cites Wical col. 17, ll. 2-61 as describing associating each combination of matched term weights to a relevance score range base on the total matched term weight where an

object that matches a first total term weight is associated to a more relevant score range than an object that matches a second total term weight that is less than the first total term weight. The cited portion of Wical describes relevance ranking all the documents that have been retrieved because they match the terms in a search query. This is processing that occurs after all the documents that match the terms in a search query have been retrieved. This does not describe, in any manner, limiting the number of documents that are retrieved. Indeed, this describes exactly one of the problems called out in paragraph [0004] of the background section of the present application, which reads, “[i]n other prior information retrieval systems, even when a user is interested in only a few most relevant documents, the ranking system has to retrieve and evaluate an exact relevance score for every single candidate document identified by the search.”

The present application describes example systems and methods that do not retrieve every single document identified by a search. Thus, Wical is a reference that is practically irrelevant to the application. Specifically, it does not teach or suggest elements and/or limitations in the independent claims in the application. Additionally, even if the referenced sections taught the elements asserted by the Examiner, Wical would still not teach or suggest each and every claimed element of the independent claims and thus none of the independent claims would be obvious in light of Wical.

Yanagihara

The portion of this reference cited by the Examiner (col. 11, ll. 55 – col. 12, ll. 14) describes a system that limits the number of documents presented to a user based on final relevance scores that are computed for every document that matches terms in a search query. Conversely, the application describes example systems and methods that do not compute a final relevance score for every document that matches terms in a query. Instead, the application describes pre-scoring association that limits the number of documents retrieved and thus limits the number of documents for which final relevance scoring is performed. Thus, the reference is practically irrelevant to the application.

One portion of Yanagihara cited by the Examiner, col. 12, ll.4-6 reads, “if 50 matches to the request are found only the 20 most relevant articles will be displayed to the user”. Applicant points out that in the same sentence, Yanagihara states “the user has limited the returns to 20” so that only 20 articles are displayed (col. 12, ll. 3-6). Thus, this is a simple display limit and provides nothing relating to score bins, score ranges, and other recited elements in the present claims. But, what is most illustrative from this section of the reference, is that all 50 of the matched documents will be retrieved and will receive a final relevance score. (col. 11, ll. 32-38) The portion cited by the Examiner, col. 11, ll.64 – col. 12, ll. 3 reads, “the searching software ranks the retrieved documents by relevance according to well known document vectors which include parameters such as the number of times a particular desired word (which was included in the search parameters) is used in the document, along with other well known relevance ranking factors.” Clearly the entire set of documents that match the search query terms are both retrieved and relevance scored. This teaches away from the example systems and methods described in the present application, where only a subset of documents that match the search term queries are retrieved and relevance scored.

For example, independent claim 1 recites “retrieving a set of most relevant documents... without retrieving other candidate documents.” Similarly, independent claim 8 recites “retrieving a set of relevant objects ... without retrieving the candidate objects from other relevance score ranges.” Likewise, independent claim 13 recites “retrieving the most relevant documents” and independent claim 20 recites “retrieving the most relevant documents.” Furthermore, independent claim 21 reads “selectively retrieving a subset of a set of documents ...”.

More generally, Yanagihara is directed towards performing simultaneous information retrieval searches, and/or scheduling multiple information retrieval searches. This has nothing to do with the application. The problem Yanagihara attempts to solve is that “[w]hile [a] search is being executed, it is not possible for the user to concurrently enter a further search request or to cause that further search request to be executed concurrently with the first search.” This problem is unrelated to reducing the number of documents retrieved by a query and thus reducing the

number of documents for which a final relevance score are computed. Thus, this is no motivation to combine this reference with any other reference cited by the Examiner.

The Examiner asserts that in a system that combines Wical and Yanagihara, it “would be obvious to an ordinary skill [sic] person in the art, at the time the invention is made, to retrieve only those items, because they are the one’s [sic]most interested [sic] to the user and it would be inefficient to retrieve those of lower interest”. What the Examiner is ignoring, is that a system built from a combination of the references would retrieve all the documents that match a query, and would compute a final relevancy score for all the retrieved documents. Only then, after retrieving all the documents and relevance scoring all the documents, would a limit on the number of documents displayed be imposed. The Examiner is equating “viewing” a relevant document with “retrieving” a relevant document. This equation is invalid. Viewing and retrieving documents are distinct actions. A system built from the combination of the references would certainly allow a user to determine which of two retrieved documents is more relevant. But that is not the point. The point is to reduce response time by retrieving a smaller set of documents most relevant to a query without retrieving each and every document that matches terms in a search query, and then to only compute a final relevancy score for members of that subset of documents. For example, independent claim 1 describes a “computer-implemented method of optimizing a response time...” Similarly, independent claim 21 recites a “computer-implemented method of optimizing a response time for retrieving relevant documents...” and “selectively retrieving a subset of a set of documents.”

35 U.S.C. § 103(a)

The Examiner rejects claims 1-22 under 35 U.S.C. § 103(a) as being unpatentable over Wical in view of Yanagihara. The Applicant asserts that the combination of references does not teach or suggest each and every claimed element and/or limitation and thus the 35 U.S.C. § 103(a) rejections should be withdrawn. Additionally, the Applicant asserts that the Examiner has not made out a *prima facie* case for combining the references, having provided no teaching, motivation, or suggestion for combining the references.

Claims 1 - 6

With respect to independent claim 1, the combination of references does not disclose retrieving a set of most relevant documents based on the association to the relevance score bins having a highest relevance score without retrieving other candidate documents as claimed in claim 1. Basically, the Examiner has provided references that do not perform pre-scoring association and that do not engage in a two-step scoring process. However, claim 1 describes a method where pre-scoring association is performed. Additionally, claim 1 describes score bins. None of the references provided by the Examiner describe associating pre-scored documents into score bins. Thus, for at least these reasons, claim 1 is not obvious in light of the combination of references.

Additionally, the combination of references does not disclose associating documents to relevance score bins based on relative total matched term weights. For this additional reason, claim 1 is not obvious in light of the combination of references. Similarly, claims 2-6 which depend from claim 1 contain the same claimed element and thus are not obvious in light of the references.

Claim 1 concerns a method of optimizing a response time. The elements listed in the office action are all logics that form part of an apparatus. Thus, the Examiner has not established a *prima facie* case for rejecting the method claimed in claim 1. For this additional reason, the rejection of independent claim 1 should be withdrawn.

Claim 2 includes determining a relevance of a document independently in relation to other candidate documents, which is not disclosed in the combination of references. For this additional reason claim 2 is not obvious. Furthermore, claim 2 is a method claim and the Examiner only provides elements of an apparatus as a basis for the §103 rejection. Thus, the Examiner has not made out a *prima facie* case for rejecting a method claim.

Claim 3 includes determining a set of most relevant documents ... without determining an exact relevance score for all the candidate documents, which is not disclosed in the combination of

references. For this additional reason claim 3 is not obvious. Furthermore, claim 3 is a method claim and the Examiner only provides elements of an apparatus as a basis for the §103 rejection. Thus, the Examiner has not made out a *prima facie* case for rejecting a method claim.

Claim 4 depends from claim 1. Claim 1 has been shown to be not obvious in light of the combination of references. Therefore claim 4 is similarly not obvious. Furthermore, claim 4 is a method claim and the Examiner only provides elements of an apparatus as a basis for the §103 rejection. Thus, the Examiner has not made out a *prima facie* case for rejecting a method claim.

Claim 5 includes defining a total relevance score range, which is not disclosed in the combination of references. For this additional reason claim 5 is not obvious. Furthermore, claim 5 is a method claim and the Examiner only provides elements of an apparatus as a basis for the §103 rejection. Thus, the Examiner has not made out a *prima facie* case for rejecting a method claim.

Similarly, claim 6 includes dividing the total relevance score range into one or more relevance score bins having equal sizes. This is not disclosed in the combination of references and thus claim 6 is not obvious for this additional reason. Furthermore, claim 6 is a method claim and the Examiner only provides elements of an apparatus as a basis for the §103 rejection. Thus, the Examiner has not made out a *prima facie* case for rejecting a method claim.

Claim 7

Claim 7 concerns a computer-readable medium having computer executable instructions for performing a method that includes, among other things, retrieving a set of most relevant documents based on the association to the relevance score bins having a highest relevance score without retrieving other candidate documents. The combination of references does not teach or suggest this claimed element and thus claim 7 is not obvious in light of the combination of references. Furthermore, the Examiner only provides elements of an apparatus as a basis for the

§103 rejection. Thus, the Examiner has not made out a *prima facie* case for rejecting a computer-readable medium claim.

Claims 8 - 12

Claim 8 discloses a retrieval logic for retrieving a set of relevant objects associated to the relevance score ranges having a greatest matched term weight without retrieving the candidate objects from other relevance score ranges. The combination of references does not teach or suggest this claimed element and thus claim 8 is not obvious in light of the combination of references. The Examiner cites to col. 8, lines 58-65 as support for the assertion that Wical discloses an object retrieval logic. However, col. 8, lines 58-65 describe a query processing module that performs case sensitive query term matching. A case sensitive query term matcher does not selectively perform object retrieval as recited in Claim 8.

The Examiner cites to col. 17, lines 2-61 as support for the assertion that Wical discloses a ranking logic that performs the actions claimed in claim 8. However, col. 17, lines 2-61 concern displaying a number of stars that indicate the general relevance of a category to a search term. Displaying stars does not disclose selectively performing object retrieval. Finally, the Examiner cites to col. 23, lines 26-60 as support for the assertion that Wical discloses a ranking logic that performs the actions claimed in claim 8. However, col. 23, lines 26-60 concern relevance ranking groups. Relevance ranking groups do not disclose selectively performing object retrieval. Thus, the office action does not provide a single citation to the elements claimed in claim 8. Therefore, Applicant respectfully requests that this rejection be withdrawn.

Additionally, all the citations provided by the Examiner refer to actions taken after the final relevance score has been computed for all the documents retrieved that matched the search query. None of the citations described, teach, or even suggest a ranking logic and/or a retrieval logic for limiting the number of documents that are retrieved as recited in Claim 8.

Claim 9 depends from claim 8 and since claim 8 has been shown to be not obvious in light of the combination of references, neither is claim 9 obvious.

Claim 10 discloses a logic for defining a total relevance score range. The combination of references does not disclose such a logic, and thus claim 10 is not obvious.

Claim 11 discloses the retrieval logic including logic for retrieving only objects from the candidate objects that match a highest value of the term weights. The combination of references does not disclose a similar logic and thus claim 11 is not obvious.

Claim 12 includes the ranking logic having means for associating document relevance scores to the relevance ranges based on matched term weights. The combination of references does not teach, suggest, or disclose this element and thus claim 12 is not obvious in light of the combination of references.

Claims 13 - 19

Claim 13 concerns a method that includes the step of retrieving most relevant documents based on assignment to score bins. The combination of references does not disclose score bins, let alone retrieving a most relevant document based on assignment to a score bin. Thus claim 13 is not obvious in light of the combination of references. Claim 13 is a method claim. The elements listed in the office action are all logics that form part of an apparatus. Thus, the Examiner has not established a *prima facie* case for rejecting the method claimed in claim 13. For this additional reason, the rejection of independent claim 13 should be withdrawn.

Claim 14 depends from claim 13 and includes identifying the most relevant documents without having to determine a final relevance score for all the candidate documents. Neither of the references discloses this element, and thus claim 14 is not obvious in light of the combination of references.

Claim 15 depends from claim 13 and includes the additional limitation of retrieving documents that match a highest term weight associated to a highest score bin without retrieving documents associated to other score bins. As mentioned above, none of the references disclose score bins. Furthermore, the references do not disclose retrieving documents that match a highest term weight without retrieving documents associated to other score bins. For these additional reasons, claim 15 is not obvious in light of the references.

Claim 16 depends from claim 13 and includes the additional limitation that documents with sufficiently different total term weights will be associated with different score bins, so that more relevant documents are stored in one set of bins while less relevant documents are stored in another set of bins. The references do not disclose score bins, let alone partitioning relevant documents into score bins based on pre-classification scores, thus claim 16 is not obvious in light of the references.

Claim 17 depends from claim 13. Claim 13 has been shown to be not obvious in light of the references and thus neither is claim 17 obvious.

Claim 18 depends from claim 13 and contains the additional element that the associating allows the most relevant documents to be identified independently from other candidate documents. The combination of references does not disclose this element and thus claim 18 is not obvious in light of the references.

Claim 19 depends from claim 13. Claim 13 is not obvious in light of the references and thus neither is claim 19.

Claim 20

Claim 20 concerns a computer-readable medium that has computer executable instructions for performing a method that includes retrieving most relevant documents based on score bins. The

combination of references does not disclose score bins, let alone retrieving a most relevant document based on a score bin. Thus claim 20 is not obvious in light of the combination of references and should be in condition for allowance.

Claims 21-22

With respect to independent claim 21, the combination of references does not disclose selectively retrieving a subset of a set of documents, where the subset includes documents associated with one or more relevance score bins as claimed in claim 21. Thus, claim 21 is not obvious in light of the combination of references. Additionally, the combination of references does not disclose associating a document to a relevance score bin based on relative total matched term weights. For this additional reason, claim 21 is not obvious in light of the combination of references. Similarly, claim 22 which depends from claim 21 contains the same claimed element and thus is not obvious in light of the references.

Claim 21 concerns a method of optimizing a response time. The elements listed in the office action are all logics that form part of an apparatus. Thus, the Examiner has not established a *prima facie* case for rejecting the method claimed in claim 21. For this additional reason, the rejection of independent claim 21 should be withdrawn.

Claim 22 depends from claim 21 and contains the additional limitation that the relevance range is computed dynamically based, at least in part, on the sum of the term weights from the search query. The combination of references does not disclose this limitation and thus claim 22 is not obvious in light of the references. Claim 22 is a method claim. The elements listed in the office action are all logics that form part of an apparatus. Thus, the Examiner has not established a *prima facie* case for rejecting the method claimed in claim 22. For this additional reason, the rejection of claim 22 should be withdrawn.

Conclusion

In conclusion, Applicant asserts that all the independent claims have been shown to be non-obvious and thus are allowable. Furthermore, the claims that depend from these non-obvious claims should also be allowed. Additionally, Applicant asserts that the dependent claims include additional elements that make them patentably distinguishable over the reference of record, and for those additional reasons are likewise allowable.

For at least the reasons set forth above, claims 1-23 patentably distinguish over the references of record and are now in condition for allowance. Applicant therefore respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

OCT. 22, 2004

Date


Peter Kraguljac
Peter Kraguljac (Reg. No. 38,520)
(216) 348-5843